



# The Importance of Stock Registration in Beef Cattle Management, for Managerial Control in the Breeding, Rearing and Fattening Phases: A Case Study in a Small Farm “alpha”, in the Southern Cone of Rondônia / Brazil.

Andersson Talaska<sup>1</sup>, Sidiney Rodrigues<sup>2</sup>, Aparecida Magali Gabriel Teixeira<sup>3</sup>, Ana Paula Wendt Menegol<sup>4</sup>, Elder Gomes Ramos<sup>5</sup>, Joelson Agustinho de Pontes<sup>6</sup>, José Arilson de Souza<sup>7</sup>, Leonardo Severo da Luz Neto<sup>8</sup>

<sup>1</sup>Academic at the Accounting Sciences Course at the Federal University of Rondônia at Vilhena's Campus. Brazil.

<sup>2</sup>Doctoral candidate by the program in Theology (PUCPR) and Master in Accounting Sciences (FURB). Professor and researcher at the Federal University of Rondônia, at Vilhena's Campus. Brazil.

<sup>3</sup>Specialist in Constitutional Law and graduated in Law (UNESC). Professor and researcher at the Federal University of Rondônia, at Vilhena's Campus. Brazil.

<sup>4</sup>Master in Mathematical Modeling and graduation in Mathematics Degree (UNIJUÍ). Professor and researcher at the Federal University of Rondônia, Campus at Vilhena. Brazil

<sup>5</sup>PhD in Administration from the National University of Missions (UNAM), Argentina. Professor and Researcher at the Federal University of Rondônia at Vilhena Campus, Brazil.

<sup>6</sup>Master in Science of Religions Program at Faculdade Unida de Vitória. Professor and Researcher at the Federal University of Rondônia at Vilhena's Campus, Brazil

<sup>7</sup>PhD in Regional Development and Environment at the Federal University of Rondônia, Brazil. Professor and Researchers of the Federal University Rondônia, at Vilhena's Campus Brazil.

<sup>8</sup>Post-Doctorate in Pastoral Psychology, PhD in Theology, PhD in Education. Master in Education, Master in Psychology and Master in Theology. Graduate in Physical Education, Nursing and Theology. Professor and Researcher at the GEITEC and GEISC at the Federal University of Rondonia, Brazil. Email: [lluz@unir.br](mailto:lluz@unir.br)

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**Abstract**—Beef cattle raising is a branch of agribusiness activity carried out by cattle raisers or livestock breeders, with cattle raising one of the largest branches of Brazilian agribusiness. The generation of new technologies leads to growth year after year, especially of large properties that use the improvements in order to achieve their growth. According to Brasília (2020, p. 60): “the growth forecast between 2019/2020 and 2029/2030 in the beef segment is a variation of 16.2% (thousand/t). According to the IBGE that year, 32.4 million heads were slaughtered across the country”, base year 2019. The case study and participant survey were used as a methodology. The typology in relation to the problem was qualitative. The issue listed was: What is the best way to demonstrate and value the breeding phases, breed and fatten beef cattle. The general objective of this research is to show what is the best way to measure the creation phases (rearing, growing and fattening), in the stock control records, in agribusiness specifically for beef cattle in small properties. As a result, we highlight that the spreadsheet made available

by EMBRAPA was completed, according to Costa et. al. (2017), in Excel 'Custobov', which provided the administrative and management controls for inventory control.

## I. INTRODUCTION

The research carried out had the intention of equipping ranchers in decision making about stock control, for small producers, which can also be adopted by medium and large breeders.

The target focus of this work were cattle raisers, who live on their rural properties, and work to ensure their livelihood and transform the surplus production into income, that is, the small producer and producer of beef cattle.

Inventory controls were demonstrated using the Excel spreadsheet 'Custobov', made available by the Brazilian Agricultural Production Company - EMBRAPA, according to Costa et. al. (2017), highlighting the cattle stock control form, reports and graphs, which will be presented in the research results section.

In agribusiness, these controls, in addition to administrative knowledge, are important, in the specific case of handling beef cattle, technical knowledge of management and specific knowledge of stock control.

In the development of the research, the following question-problem was formulated: **What is the best way to demonstrate and value the stages of raising, rearing and fattening beef cattle?**

The research had the following **general objective**: To show what is the best way to measure the creation phases (rearing, growing and fattening), in the stock control records, in the specific agribusiness of beef cattle in small properties.

To answer the general objective, the **following specific objectives** were listed:a) To carry out a bibliographical review regarding the subject to be studied. b) Describe the brood phases (reproduction, nutrition and weaning of the calf). Breeding Phase (Weaning until the beginning of fattening in males or until reproduction in females). c) Identify a model for recording the stock control of the breeding, rearing and fattening stages of beef cattle.

The research carried out, having as **methodology** the bibliographical research, which were used as a source of consultations, magazines, books, periodicals among others on the subject under study.

In addition, the researcher participated in data collection by recording field observation data and using specific documents on a cattle farm, which is the Nelore breed whose specimens are medium and large animals

with white or gray fur, on a small property, thus being a case study.

According to Gil (1999, p.73) *apud*Beuren (2003 p. 84):

The case study is characterized by the deep and exhaustive study of one or a few objects, in order to allow ample and detailed knowledge of the same, a task practically impossible due to the other types of delineations considered.

The case study was carried out on a single farm and concentrated, due to the accessibility of information and permission to monitor the handling of beef cattle.

The research carried out was qualitative and according to Beuren, (2003 p.92): "In qualitative research, deeper analyzes are conceived in relation to the phenomenon being studied".

This research is classified, in terms of typology, as participant and descriptive and according to Beuren (2003 p. 90) describing that participant research is characterized by the situations to be studied: "Within this context, it is important to promote the participation of all, diving deeply in research".

The work is structured in the literature review on beef cattle, the livestock phases (raising, rearing and fattening), the stock record of beef cattle management, and the adoption of the 'Custobov' spreadsheet, provided free of charge by EMBRAPA to demonstrate the calculations.

## II. THEORETICAL REFERENCE

### 2.1 Beef cattle ranching.

Livestock moves in rural areas and its development depends on investments by owners and access to credits for rural producers, including for small properties, in order to maintain, expand and fund beef cattle agribusiness, being an important factor in generating income for the ranchers.

LazzariniNeto (2000), states that livestock is surprising in Brazil, and that no other activity in the field currently presents potential for growth and generation of income and foreign exchange as the production of beef.

The cattle herd in the state of Rondônia is expected to reach 14 million heads in 2017, according to (IDARON – Agrosilvopastoral health defense agency of the state of Rondônia).

Following the steps for managing beef cattle raising, we present the flowchart for managing cattle. According to Oliveira *et al.* (2006, p.5), "the management and zootechnical bookkeeping in order to have full control of the production system and the costs involved in production

in order to manage resources and estimate profits, as well as carry out the meta-evaluation of the process administrative", according to the flowchart shown in Figure 1.

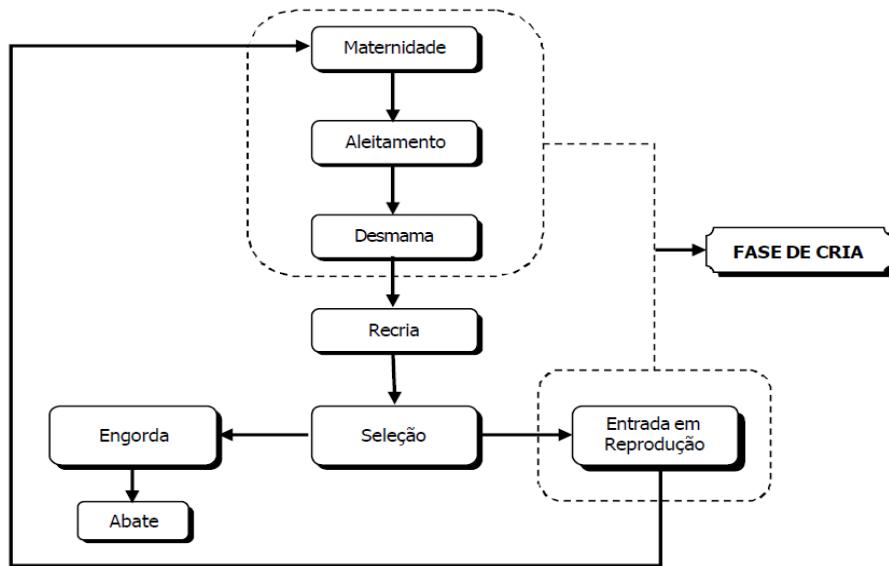


Fig.1: Flowchart of a property dedicated to raising, rearing and fattening beef cattle.

Source: Oliveira *et al.* (2006, page 6)

It is of paramount importance to maintain management controls and mainly inventory for control in phase described in the flowchart above.

In the projections 2019/2020 to 2029/2030, made by MAPA - Ministry of Agriculture, Livestock and Supply, in 2020, the participation of beef by region is illustrated, which we present in figures 2 and 3 below.

BOVINOS	Animais abatidos 2019 (cabeças)	%
Produção Nacional	32.436.451	100
Principais estados produtores		
Mato Grosso - MT	5.649.896	17,4
Mato Grosso do Sul - MS	3.585.067	11,1
São Paulo - SP	3.326.168	10,3
Goiás - GO	3.008.205	9,3
Minas Gerais - MG	2.846.455	8,8
Pará - PA	2.407.912	7,4
Rondônia - RO	2.392.309	7,4
Rio Grande do Sul - RS	1.966.444	6,1
Total	25.182.456	77,6

Fonte: IBGE - Pesquisa trimestral de abates de animais (Acumulado Jan a Dez 2019)

Fig.2: Main states in slaughtered animals - CATTLE in 2019 - National

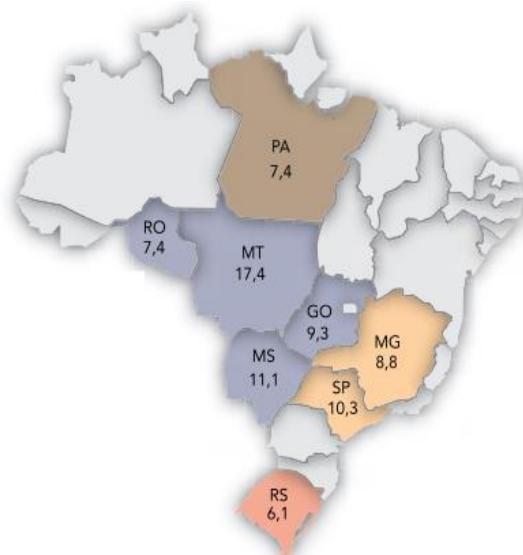


Fig.3: Main states in slaughtered animals - CATTLE in 2019 - National - MAPA BRAZIL DISTRIBUTION.

As can be seen in the state of Rondônia, in 2019 it contributed with 7.4% of the cattle slaughtered in 2019, being highly representative at the national level.

## 2.2 brood phase.

According to Valle, Ezequiel Rodrigues Do. (2000, p.50) apud Longo (2014, p. 20): "The productivity of the

breeding system depends on the minimum knowledge of the factors involved in the production process, the level of management, the management techniques used and the availability of resources financial".

The brood system enters as the first phase of the process of a beef cattle, from its reproduction, its nutrition, cure of possible parasites, which often leads to the death of

the calf, due to the lack of necessary techniques for this, and to put the end of weaning, the correct period for this procedure, freeing for re-creating.

The correct management of all the processes leads to better formation of the cattle on top of the factors generated during this period, as shown in figures 4, 5 and 6, with the birth, nutrition and weaning of the calf.



Fig.4.Birth of the bovine.

Source: [https://www.google.com.br/search?q=nascimento+do+bovino+de+corte&source=lnms&tbo=isch&sa=X&ved=0ahUKEwje0v73\\_N7XAhVEfpAKHUE1AR0Q\\_AUICygC&biw=1366&bih=662#imgrc=GZLTZoJk5kqv2M](https://www.google.com.br/search?q=nascimento+do+bovino+de+corte&source=lnms&tbo=isch&sa=X&ved=0ahUKEwje0v73_N7XAhVEfpAKHUE1AR0Q_AUICygC&biw=1366&bih=662#imgrc=GZLTZoJk5kqv2M)

Right after birth, the mother is in charge of cleaning the calf, removing all the birth mucosa, and in the same way already massaging the calf, which is an important part, in the same way the cure of the navel of the animal, done by

the cattleman. Some offspring are rejected by the matrix, making it more difficult to correctly control the newborn. Afterwards, the newborn is observed in its period of nutrition and growth.



Fig.5.Calf Nutrition.

Source: [https://www.google.com.br/search?q=nascimento+do+bovino+de+corte&source=lnms&tbo=isch&sa=X&ved=0ahUKEwje0v73\\_N7XAhVEfpAKHUE1AR0Q\\_AUICygC&biw=1366&bih=662#imgrc=evDtTdIiDW1J8M](https://www.google.com.br/search?q=nascimento+do+bovino+de+corte&source=lnms&tbo=isch&sa=X&ved=0ahUKEwje0v73_N7XAhVEfpAKHUE1AR0Q_AUICygC&biw=1366&bih=662#imgrc=evDtTdIiDW1J8M)

To avoid problems during the mother's gestation or the calf's lack of interest in nutrition (feeding), there must be a control followed by observation of the calf so that no

damage occurs in the rearing, rearing and fattening process.



Fig.6. Weaning from the calf, at approximately 8 months of age.

Source: [https://www.google.com.br/search?biw=1366&bih=662&tbm=isch&sa=1&ei=hSQcWo-NG8\\_4wASb9rT4Aw&q=bezerro+desmamado&oq=bezerro+des&gs\\_l=psy-ab.3.1.0l6j0i5i30k1l2j0i8i30k1l2.59096.61007.0.63340.11.10.0.1.1.0.216.1182.0j5j2.7.0....0...1c.1.64.psy-ab..3.8.1186...0i67k1.0.xOcPAbcY1Rk#imgrc=pDoNR6KSR4xNYM](https://www.google.com.br/search?biw=1366&bih=662&tbm=isch&sa=1&ei=hSQcWo-NG8_4wASb9rT4Aw&q=bezerro+desmamado&oq=bezerro+des&gs_l=psy-ab.3.1.0l6j0i5i30k1l2j0i8i30k1l2.59096.61007.0.63340.11.10.0.1.1.0.216.1182.0j5j2.7.0....0...1c.1.64.psy-ab..3.8.1186...0i67k1.0.xOcPAbcY1Rk#imgrc=pDoNR6KSR4xNYM)

Oliveira *et al*, (2006, p.7) states: "In general, well-managed farms keep zootechnical records, such as dates of birth, coverage, weaning, weight gain control, control of the matrix's body score, sanitary problems etc".

The control of handling or phases of the cattle is of paramount importance and must be carried out by the farmer, with follow-up reports being made in the phases mentioned above.

- Rebuildphase.

In the rearing phase, males and females are separated for better stock control, with a breeding season for females in 36 months, where the females can be bred during this

period, after which they are removed for slaughter, where the males are separated for the fattening phase.

According to Corrêa et al, (2009, p.8):

As for rearing, it is a phase of bovine development in which it presents greater impetus for body growth. It is between weaning and the beginning of fattening. This phase is characterized by the great formation of muscle mass and the development of bone structure. At the end of this phase, the bovine will have a fully formed skeleton and its body size will be defined.

Figure 7 shows the animals separated for breeding, and Figure 8 animals destined for the fattening stage.



Fig.7. Cattle intended for breeding.

Source: [https://www.google.com.br/search?biw=1366&bih=662&tbs=isch&sa=1&ei=xiOcWvi7EpCuwgT10aPADA&q=bovinos+reprodu%C3%A7%C3%A3o&oq=bovinos+reprodu%C3%A7%C3%A3o&gs\\_l=psy-ab.3..0i8i30k1l2.46471.50330.0.50499.18.17.0.0.0.0.280.2215.0j11j2.13.0...0...1c.1.64.psy-ab..5.13.2211...0j0i67k1j0i5i30k1j0i30k1.0.6UEMbN\\_THME#imgrc=jcwq\\_ghO7A9CcM:](https://www.google.com.br/search?biw=1366&bih=662&tbs=isch&sa=1&ei=xiOcWvi7EpCuwgT10aPADA&q=bovinos+reprodu%C3%A7%C3%A3o&oq=bovinos+reprodu%C3%A7%C3%A3o&gs_l=psy-ab.3..0i8i30k1l2.46471.50330.0.50499.18.17.0.0.0.0.280.2215.0j11j2.13.0...0...1c.1.64.psy-ab..5.13.2211...0j0i67k1j0i5i30k1j0i30k1.0.6UEMbN_THME#imgrc=jcwq_ghO7A9CcM:)



Fig.8. Cattle separated for the fattening phase.

Source: [https://www.google.com.br/search?biw=1366&bih=613&tbs=isch&sa=1&ei=SQcWqL9NsbAwATwjbrwBA&q=catfle+fattener&oq=cattle+fattener&gs\\_l=psy-ab.3..1.0.0.0.204.1474.0j8j1.9.0...0...1c.1.64.psy-ab..7.9.1274...0j0i67k1j0i30k1j0i8i30k1j0i24k1.0.HF7XfnvVVYE#imgrc=5jlfMgYcD7-xqM:](https://www.google.com.br/search?biw=1366&bih=613&tbs=isch&sa=1&ei=SQcWqL9NsbAwATwjbrwBA&q=catfle+fattener&oq=cattle+fattener&gs_l=psy-ab.3..1.0.0.0.204.1474.0j8j1.9.0...0...1c.1.64.psy-ab..7.9.1274...0j0i67k1j0i30k1j0i8i30k1j0i24k1.0.HF7XfnvVVYE#imgrc=5jlfMgYcD7-xqM:)

At this stage, breeders are expected to adopt the inventory control form in addition to other cost and expense controls.

- Fattening phase.

The fattening phase is the last of the processes for the release of the bovine for the cut, after going through all the

brooding and rearing phases, the bovine is separated for relatively enough fattening for its slaughter.

For Sewell (2002, p. 135) *apud* Corrêa et al. (2009 p. 9)

This fattening phase is divided into two phases: the fattening phase itself, where the animals are gaining weight due to the deposition of muscle tissue, and the finishing or finishing phase, where the animals slow down the meat

deposition and start to depositing fat, promoting the finishing of the carcass. In this case, food has a great influence and must be administered with care so as not to cause high costs to the rancher and low results in the fattening phase.

After reaching their final weight, they are sold quickly so that there is no harm to the breeder due to the cost of accumulating fat in the cattle carcass for cutting.

Beef cattle raising generates a lot on top of fattening, ranchers see in this system a better and faster way to have a financial return, since lean and cheap cattle are bought by the weight of the arroba, and fattened quickly with about 460 kg to be taken to slaughter, a faster cycle, considering that this property does not make use of animal reproduction, putting into practice and values the stages of growth and generation of cattle.

Figure 9 shows the last stage of beef cattle.



Fig.9. Cattle being sent for slaughter and sale.

Source: <https://www.google.com.br/search?biw=1366&bih=662&tbo=isch&sa=1&ei=NyccWueKJcuowgTU5IioCg&q=cattle+referred+for+slaughter&oq=cattle+referred+for+o+labate&gab.3...2783.11468.0.11628.46.36.4.0.0.0.342.4465.0j19j5j1.25.0....0...1c.1.64.psy-ab..19.6.736...0j0i13k1j0i30k1j0i8i30k1j0i10i24k1j0i24k1.0.saaqj#wqK imgrc=HXKaGd8-SL4R6M>

- Beef cattle management stock record.

According to Barbalho et al. (2005, p.3): "To facilitate management (models that apply in cattle raising, such as feeding, reproduction, vaccination, weight gain, pasture movement, change of era) it is necessary to divide or classify the herd into categories".

The management of cattle is a process that entails several factors in a rural property, from the beginning of the phase to the end, every strict control must be maintained for the best monitoring of its stock.

According to Marion (1996, p. 49) apudBarbalho et al. (2005 p. 3):

1. Calf: is the calf of the cow. Its age ranges from zero to 12 months of age.
2. Calf (a): it is the name given to the calf (a), after the weaning period. The age of the heifer is from 13 months until slaughter and that of the heifer is from 13 months until the first

calving.

3. Garrote: entire male (not neutered) from weaning to entry into reproduction.
4. Bull: The withers changes to the bull category around two to three years after birth, where in this last year it undergoes experimentation, it is recommended that the permanence in the herd does not exceed the range of three to four years. The era of the bull starts in the 25th to the 35th month, as long as he has a good performance as a sire. If it does not perform well, it remains in the withers category, where it will be discarded (slaughter) or passes to the ox category.
5. Ox: adult cattle over three years old, fort and tame, can be used in agricultural services.
6. Cow: is the name given to the heifer after the first calving. Like the bull, the cow goes through a period of experimentation and the

measure that proves to be a good breeding matrix remains in the herd, otherwise it is discarded.

This stock and handling control is represented by conference sheets so that there is no loss of control. The sheets are separated according to planning.

- Flock Form: To monthly control the herd, with daily monitoring, recording the stock, purchase for inputs for the property, even for recording deaths that may happen in the controlled lot. Based on IDARON file.
- Cattle Purchase and Sale Form: Controls the purchase and sale of cattle with their values, weights, freights. According to sales and purchase invoices.
- Management sheet: Assists in the management carried out in the herd.
- Birth record: Controls the birth of calves, their date, matrix and sex stamps. The value being registered according to the market price.
- Matrix control form: Controls the reproduction of cows, the months of gestation, and weaning of the calf, together with the birth form with the control of calving and mating dates.
- Pasture sheet: Controls pastures with a correct management of cattle, checking the acquisition of lot weights and pasture quality. This pasture management takes place in paddocks formed on the property to control pasture growth, helping during rainy periods, as it is a pasture with a sawed area and not red earth, being in an open and

unconfined field, it needs greater care in this area. control of pastures so that there is no greater damage or loss of weight in the animals, resulting in a loss of price for a possible sale.

Lack of control, or sufficient knowledge of ranchers, leads to difficulties in managing stocks or decisions to be taken on the property to generate profits. New technologies most often facilitate harm by not knowing their actions. Smaller properties tend to keep your records more easily, larger scale properties make your control a daily use of the supplied instruments, thus giving your controls and P&L checks.

### III. RESULTS AND INTERPRETATIONS

The research was carried out in a small property, in the Southern Cone of Rondônia, which was named in this study as 'Alpha', with data from the year 2020.

The stock control model used was the Excel spreadsheet 'Custobov', from EMBRAPA, available at <https://www.ilovepdf.com/pt/pdf>

The 'Custobov', in addition to the spreadsheets below, comprises a manual prepared by a team of authors, who are researchers and analysts from EmbrapaGado de Corte, explaining the concepts of each topic and how to use the Excel spreadsheet.

We will present below the result of the accounting records using EMBRAPA's Excel model.

In figure 10, spreadsheet 1 is presented. Cattle of the year, there are the data of the batch under study, that is, the stock record.

REBANHO BOVINO DO ANO										
Atenção: Preencher somente as células brancas.										
1. REBANHO DE REPRODUÇÃO										
		Peso médio	Valor		Cabeças		Peso vivo total do rebanho (kg)		Valor estoque gado (R\$)	
		kg/cab.	/cab.		Inicial	Final	Inicial	Final	Inicial	Final
Touros		450	6,000,00	2		900	900	12,000,00	12,000,00	
Vacas (matrizes)		240	3,680,00	19		4,560	3,360	69,920,00	51,520,00	
SUBTOTAL				21	"	5,460	4,260	81,920,00	63,520,00	
DIFERENÇA NO ESTOQUE E VALOR DO GADO DE CRIA (final - inicial)							-1,200		-	

2. REBANHO DE RECRIA / ENGORDA											
	Peso por cabeça (kg)			Valor		Cabeças		Peso vivo total do rebanho (kg)		Valor estoque gado (R\$)	
	Inicial	Final	média	R\$/kg vivo		Inicial	Final	Inicial	Final	Inicial	Final
Fêmeas + 36 meses											
Fêmeas 24-36 meses					- 73			- 270	- 1,035	- 17,550,00	- 67,275,00
Fêmeas 12-24 meses					85			280	-	21,000,00	-
Fêmeas 0-12 meses	30	115				65,00	9				
Machos 0-12 meses	35	135				75,00	8				
Machos 12-24 meses											
Machos 24-36 meses											
Machos + 36 meses inclusive tourunos											
SUBTOTAL						17	9	550	1,035	38,550,00	67,275,00
DIFERENÇA NO ESTOQUE E VALOR DO GADO DE RECRIA / ENGORDA										485	28,725,00

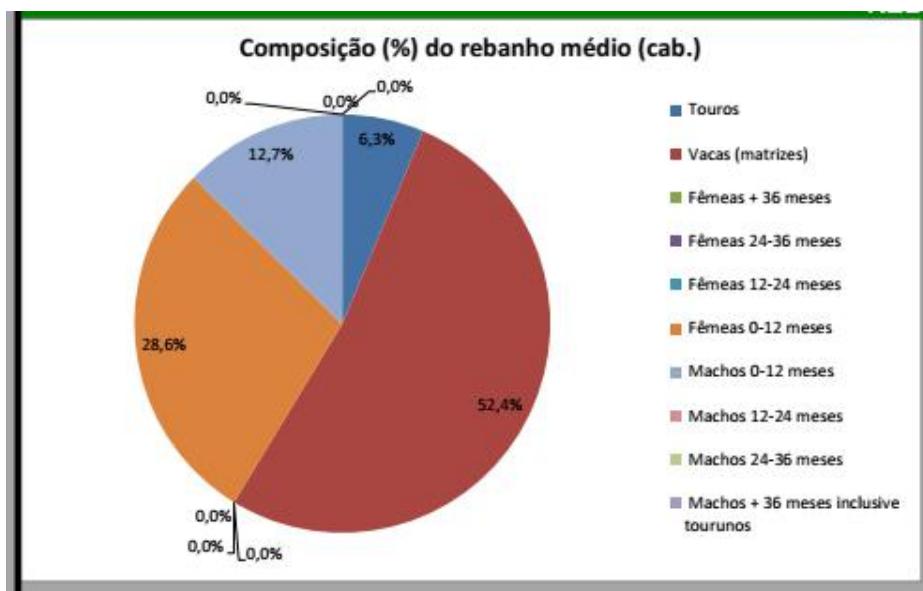
Fig.10: Worksheet 1. Cattle of the year.

Source: Prepared by the authors. 'Custobov' spreadsheet base.

As can be seen, in addition to the number of heads, the model presents the weight and value.

The stock control form is an extremely important aid for a beef cattle rural property, its use gradually facilitates all decision-making by ranchers.

The 'Custobov' spreadsheet also provides graphs that are made directly from the data entered in the model. Below we present Graph 1, on the composition (%) of the average herd (head).



Graph 1– Composition (%) of the average herd (head).

Source: Prepared through data entered by the authors.'Custobov' spreadsheet base.

The template also provides the following graphics:

- Composition (%) of the average herd (AU) by stage.
- Average herd value by animal category (R\$).
- Herd balance (kg live weight).

The table and graphs are the records of the breeding/rearing and fattening operation on the rural property, with an initial herd of 2 bulls and 19 cows (matrices - grafted), weighing the bulls in 450 kg or 30 arrobas (@), with a value of BRL 6,000 each, totaling BRL 12,000.00.

The 19 cows with an average weight of 240 kg or 16@, in the amount of R\$ 3,680.00 (Market value) totaling R\$ 69,920.00. The initial value of the herd is R\$ 81,920.00. Where of the 19 heads of cows, 17 had correct brood, 9 females and 8 males were born, with an average initial weight of females of 30 kg with a value of R\$ 65.00 per kg, and males 35 kg with a value of R\$ 75.00 per kg, totaling BRL 38,550.00 of births. Having a total herd of 38

heads, in the amount of R\$ 120,470.00, as the initial balance, as shown in the figure.

The quantities recorded are real from a beef cattle farm in the Southern Cone of Rondônia. The values used were from the market (refrigerators and butchers).

Percentage analyzes (%) are also available, as shown in Figure 9, where we present spreadsheet 5, Figure 11 – Herd report (averages of the year).

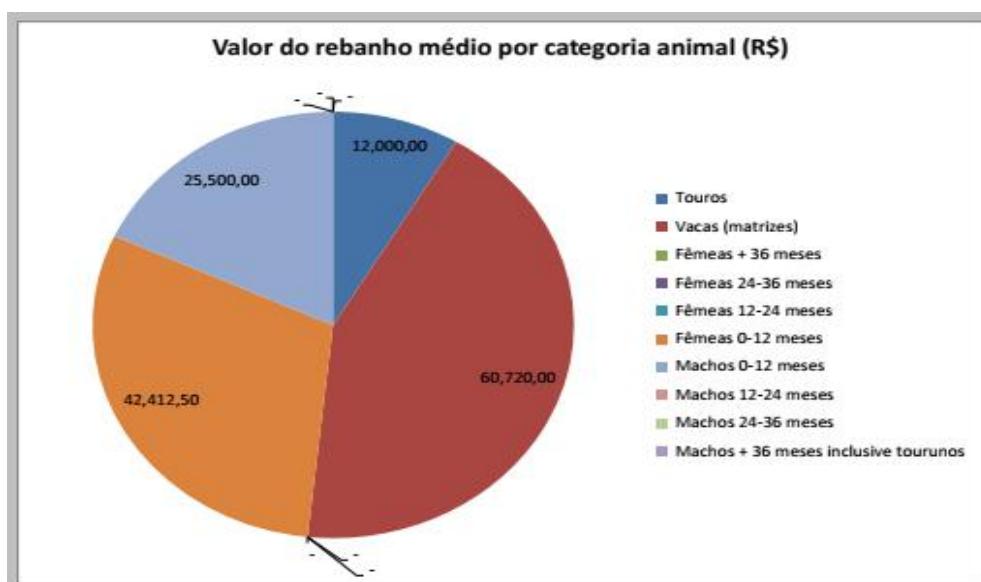
RELATÓRIO DO REBANHO (médias do ano)							
Categorias animais	Peso		em cab.	Composição		R\$/cab.	R\$/Categoria
	kg/cab.	Quan t.cab.		Quant.	%		
Touros	450	2	6,3%	2,0	15,4%	6,000,00	
Vacas (matrizes)	240	17	52,4%	8,8	67,7%	3,680,00	
Fêmeas + 36 meses	-	-	0,0%	-	0,0%	-	
Fêmeas 24-36 meses	-	-	0,0%	-	0,0%	-	
Fêmeas 12-24 meses	-	-	0,0%	-	0,0%	-	
Fêmeas 0-12 meses	73	9	28,6%	1,5	11,1%	4,712,50	
Machos 0-12 meses	85	4	12,7%	0,8	5,8%	6,375,00	
Machos 12-24 meses	-	-	0,0%	-	0,0%	-	
Machos 24-36 meses	-	-	0,0%	-	0,0%	-	
Machos + 36 meses inclusive	-	-	0,0%	-	0,0%	-	
<b>TOTAL</b>		<b>32</b>	<b>100,0%</b>	<b>13,0</b>	<b>100,0%</b>		<b>140,632,50</b>
	cab./ha		UA/ha				
	Lotação das pastagens		0,2	0,1			

Fig.11– Worksheet 5. Herd report (year averages).

Source: Prepared by the authors. 'Custobov' spreadsheet base.

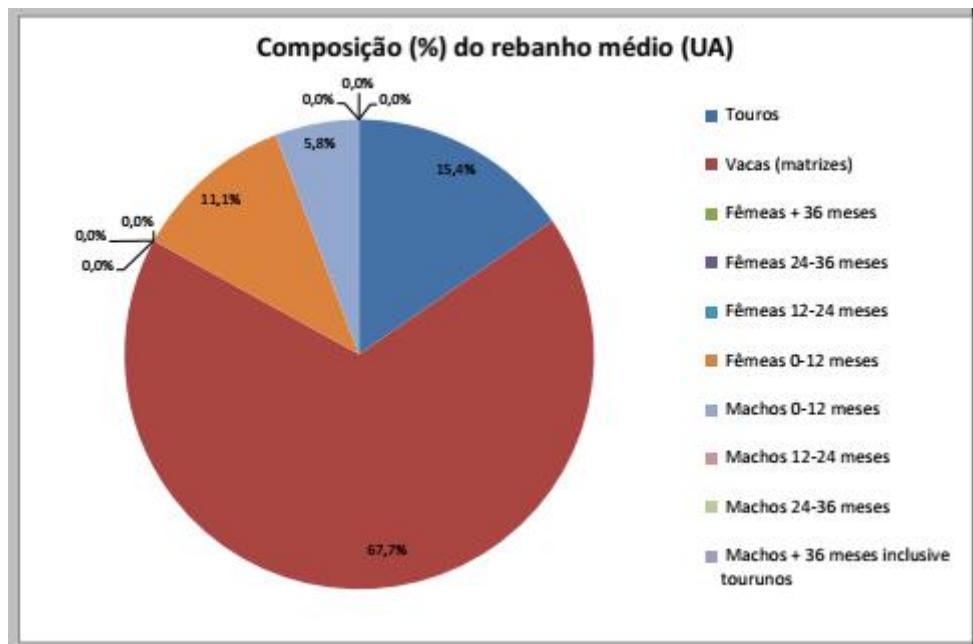
In the aforementioned worksheet, in addition to the control by weight, quantity, it is possible to analyze the percentage, which is a differential in terms of stock control.

You can also analyze the herd by graphs 2 and 3 below:



Graph 2– Average herd value by animal category (R\$).

Source: Prepared through data entered by the authors. 'Custobov' spreadsheet base.



Graph 3– Composition (%) of the average herd (AU).

Source: Prepared through data entered by the author. 'Custobov' spreadsheet base.

The 'Custobov' worksheet, in terms of inventory control, is completed with charts 2 and 3, and is therefore an excellent management tool for cattle breeders in general, especially small ones, as this worksheet has free access, as it is made available by EMBRAPA.

#### IV. CONCLUSION

It is understood that livestock in Brazil has a relevant growth, and that new technologies and information help in decision making for activities in the field, in the beef cattle industry, one of these available information technologies being the spreadsheet. 'Custobov', from EMBRAPA.

According to Corrêa (2009, page 3):

The great concern in this activity is the quality of production results. In this case, in order to obtain good results, management has a fundamental role. Management is responsible for the constant search for innovations in the production of beef cattle, always looking for the best ways to facilitate handling and produce quality.

For the management of beef cattle raising, constant study and use of technologies is necessary to improve the quality of production, but it requires high investments, daily monitoring in livestock management, a critical view of the performance of animals, planning on expenses (investments, expenses and cost), introduction and use of

technologies, correct food controls, among others, of which stock control was addressed in this research.

The general object presented was achieved, since the Excel model 'Custobov' clearly demonstrated the control of stock in the rearing, rearing and fattening stages, being an excellent management tool for small beef cattle breeders.

We emphasize that the study in the beef cattle management rural property was intended to help smallholders to understand the importance of stock control in the beef cattle activity.

Notoriously, the valuation of stocks is important, as well as all the analyzes that can be carried out based on the spreadsheets and graphs available in the Excel model, in order to contribute to the success of the business.

As a recommendation, we suggest that this study can be carried out on a rural property using all the spreadsheets available on 'Custobov', which includes the control of expenses, depreciation, capital cost, revenues and DRE - Income Statement for the Year, in separate spreadsheets and accompanied by tracking reports and graphics.

#### REFERENCES

[1] BRASILIA. Ministry of Agriculture, Livestock and Supply. **Projections of agribusiness Brazil 2019/20 to 2029/30.** Long Term Projections. 11th edition. Year 2020. Brasilia MAP 2020. Available at: [www.agricultura.gov.br](http://www.agricultura.gov.br)

- [2] BEUREN, Ilse Maria. **How to prepare monographic works in theoretical and practical accounting**– São Paulo: Atlas, 2003.
- [3] CANDIDA CORRÊA, Cynthia et al. **Management of beef cattle in Brazil: Breeding, rearing and fattening cattle on pasture**, 2009.
- [4] COAST. PEREIRA. QUEIROZ MALAFAIA. Fernando Paim. Mariana of Aragon. HaroldoPires de and Guilherme Cunha. **Custobov**, Livestock costs at the tip of a pencil EMBRAPA. 2017. Available at:<https://cloud.cnpgc.embrapa.br/custobov/> - Accessed on 12/09/2021.
- [5] FERREIRA BARBALHO, Valdir et al. **Animal stock control in beef cattle raising: a question of continuity**, 2005.
- [6] LAZZARINI NETO, Sylvio. **Create and Rebuild**. Viçosa: Learn Easy, 2000. Collection profiting from livestock, v.2.
- [7] LONG, Caroline Wunderlich. **Environmental management in beef cattle**: a case study in a silvopastoral property.2014.
- [8] OLIVEIRA LOPES, Ronaldo et al. **N and management of beef cattle in the rearing stage**,2006.